

PROPOSED USE OF THE PLENARY POWERS TO PLACE
PUBLICATIONS BY MOORE, 1938 (1939) AND YELTYSHEVA,
1956, 1959, 1964, CONCERNING DISSOCIATED FOSSIL
CRINOID REMAINS ON THE OFFICIAL INDEX OF REJECTED AND
INVALID WORKS IN ZOOLOGICAL NOMENCLATURE, TO
SUPPRESS 13 GENERIC NAMES BASED ON CRINOID STEM
FRAGMENTS, AND TO DECLARE THESE NAMES AVAILABLE FOR
USE IN ZOOLOGICAL NOMENCLATURE AS COLLECTIVE GROUPS.
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The purpose of this application is to request the International Commission on Zoological Nomenclature to use its plenary powers for (1) placing later-specified publications by R. C. Moore, 1938 (1939) and R. S. Yeltysheva, 1956, 1959, 1964, on the Official Index of Rejected and Invalid Works in Zoological Nomenclature, (2) suppressing 13 generic names based on dissociated fossil crinoid stem parts with placement of them on the Official Index of Rejected and Invalid Generic Names in Zoology, and (3) declaring the above indicated 13 names available for use in zoological nomenclature as collective groups. These actions are needed to remove confusion and stabilize nomenclature of many scores of fossil species (more than 150) which have been demonstrated to possess great value for age determination of sedimentary deposits containing them and for use in stratigraphic correlations, both locally and interregionally, even between continents. It is desirable to include in volumes of the *Treatise on Invertebrate Paleontology* devoted to Crinoidea, in preparation, results of studies concerned with dissociated skeletal remains, without accepting generic names that fail to meet requirements of the zoological *Code*, however. Only the Commission, by use of its plenary powers, can remove difficulties and provide a basis for stabilized nomenclature.

2. In 1938 (1939) Moore distinguished assemblages of fossil crinoid skeletal fragments which, in order to express differences in magnitude, he called "divisions", "main groups", "groups", and "sections". He treated the fossils as objects comparable to distinctively shaped and coloured pebbles which might be useful for stratigraphic correlation of formations containing them and took care to avoid consideration of them in zoological terms, stating (Moore, 1938, p. 175) that his "classification and scheme of designation purposely are made entirely distinct from procedures under the rules of zoological nomenclature." Names adopted for divisions, main groups, and groups were latinized plural words and for sections binominal latinized singular words. Other authors have judged that Moore's intentions should be ignored and that names applied by him to fossil crinoid stem parts therefore are competitive with generic names published by Yeltysheva. Although the latter were explicitly called new genera, they were conceived to be artificial and subsequently regarded as equivalent to

collective groups, authorized by the zoological *Code* (Art. 42c). None has been so designated in print, however. In order to remove doubt, the Commission is asked to reject formally Moore's cited publication as applicable to zoological nomenclature.

3. In 1956 Yeltysheva published a greatly elaborated artificial scheme for classifying and naming fossil crinoid stem fragments with categories designated as groups, subgroups, and artificial genera, 48 in total number. A single binomen (*Cyclopentagonalis dentatus*), without description or illustration, was given as example of part of an artificial genus, but it was not called a species. Without any significant changes this was republished by Yeltysheva in 1959 and 1964. Although she and other Russian paleontologists have construed her names for artificial genera actually to represent collective groups (personal communication, April 8, 1968) and thus admissible for zoological use under *Code* Article 42c, they were not so designated and defined. Also, they fail to meet the test of collective groups in being "an assemblage of identifiable species of which the generic positions are uncertain" (*Code* glossary). Obviously, Yeltysheva's classification and nomenclature given in the cited publications are ruled out of possible acceptance by Article 1 of the *Code*, for this explicitly disallows "names given to hypothetical concepts . . . or names proposed for other than taxonomic use." Therefore, the Commission is asked to reject the Yeltysheva publications referred to as sources of names available in zoological nomenclature.

4. Five generic names which have been widely used by authors for designation of dissociated parts of fossil crinoid columns, with earliest known post-Linnean publication of each, are *Entrochus* Hofer, 1760 (p. 169), *Trochita* Hofer, 1760 (p. 17), *Encrinites* Guettard, 1761 (p. 226), *Trochites* Bertrand, 1763 (v. 1, p. 200), and *Entrochites* Titius, 1767 (p. 15). Combined with specific names (no fewer than 120), these catchall genera are distributed from Lower Ordovician to Upper Cretaceous and striking morphological differences of many species referred to them clearly denote absurdity of considering them to be congeneric. Nevertheless, most species are readily identifiable and could be recognized appropriately as type-species of somewhat precisely defined true genera. Accordingly, the Commission is asked to declare the named crinoid-stem assemblages as collective groups (which need no type-species) and to reject them from consideration as genera.

5. Yeltysheva in 1955 published descriptions and illustrations of 12 species of fossil crinoids from early Paleozoic formations in Siberia, each indicated as new ("n.sp."). They were assigned to three new genera named *Pentagonopentagonalis* (p. 42), containing nine species, *Pentagonocyclicus* (p. 46), with two species, and *Cyclocyclicus* (p. 46), with a single species. The first two do not qualify with stipulation of the *Code* (Art. 13b) that genera introduced after 1930 shall be accompanied by designation of a type-species for each; the third is admissible as a monotypic new genus (*Code*, Art. 68c). Subsequent to 1955, at least 25 new species have been added to *Pentagonopentagonalis*, 72 new species to *Pentagonocyclicus*, and 11 new species to *Cyclocyclicus*. The first two still lack type-species. Morphological differences of the recognized species and stratigraphic range from Lower Ordovician to Middle Devonian suggest that

none of these so-called genera are other than collective groups, and the Russian paleontologists so consider them. The Commission now is asked to rule that these three assemblages are in fact collective groups with authorship and date of Yeltysheva, 1955, and accompanying this action to reject them as genera. Then, *Bystrowicrinus* Yeltysheva in Yeltysheva and Stukalina, 1963 (p. 27), with the originally designated type-species *Pentagonopentagonalis quinquelobatus* Yeltysheva, 1955 (p. 43) (a presently unavailable binomen), could be accepted. Likewise, *Obuticrinus* Yeltysheva and Stukalina, 1963 (p. 32), with the originally designated type-species *Pentagonopentagonalis bilobatus* Yeltysheva, 1960 (p. 17) (a presently unavailable binomen), could be accepted. Other new genera published by Russian paleontologists are identical to *Bystrowicrinus* and *Obuticrinus* in having unavailable binomina as designated type-species.

6. In addition to the three collective groups referred to in the preceding paragraph, the Commission is requested to rule that assemblages of fossil crinoid stem parts named *Trigonotrigonalis* Dubatolova and Shao (1959), *Trigonocyclicus* Yeltysheva and Stukalina (1963), *Tetragonotetragonalis* Yeltysheva in Yeltysheva and Stukalina (1963), *Tetragonocyclicus* Dubatolova (1964), and *Cyclopentagonalis* Yeltysheva (1964) are usable in zoological classification and nomenclature as collective groups, at the same time rejecting them as names of genera. The authorship and dates of the respective collective groups would be as given above.

7. Summarizing, the Commission is now asked to use its plenary powers to:

- (1) place on the Official Index of Rejected and Invalid Works in Zoological Nomenclature publications listed as follows:
 - (a) Moore, R. C., 1938 (1939), The use of fragmentary crinoid remains in stratigraphic paleontology. *Denison Univ. Bull., Jour. Sci. Lab.*, 33 : 165-250, fig. 1-14, pl. 1-4.
 - (b) Yeltysheva, R. S., 1956, Stebli morskikh liliy i ikh klassifikatsiya [Crinoid stems and their classification]. *Leningrad. Univ., Vestnik, ser. geologiya i geografii*, no. 12, vyp 2 : 40-46, fig. 1-3.
 - (c) Yeltysheva, R. S., 1959, Printsipy klassifikatsii, metodika izucheniya i stratigraficheskoe znachenie stebley morskikh liliy [Principles of classification and methods of study for stratigraphic use of crinoid stems]. *Vses. Paleont. Obshch., Ezhegodnik, Trudy*, 2 : 230-235, 1 pl.
 - (d) Yeltysheva, R. S., 1964, O klassifikatsii stebley morskikh liliy [On classification of crinoid stems]. *Osnovy paleontologii, Y. A. Orlov (ed.), Iglokozhi, gemikhordorye, pogonofory, i shchetinkochelyustnye*, p. 74-75, 80, fig. 114, pl. 15, fig. 8-23.
- (2) suppress the following generic names published for dissociated fossil crinoid stem parts with placement of them on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Entrochus* Hofer, 1760;
 - (b) *Trochita* Hofer, 1760;
 - (c) *Encrinites* Guettard, 1761;
 - (d) *Trochites* Bertrand, 1763;

- (e) *Entrochites* Titius, 1767;
 - (f) *Pentagonopentagonalis* Yeltysheva, 1955;
 - (g) *Pentagonocyclicus* Yeltysheva, 1955;
 - (h) *Cyclocyclicus* Yeltysheva, 1955;
 - (i) *Trigonotrigonalis* Dubatolova and Shao, 1959;
 - (j) *Trigonocyclicus* Yeltysheva and Stukalina, 1963;
 - (k) *Tetragonotetragonalis* Yeltysheva in Yeltysheva and Stukalina, 1963;
 - (l) *Tetragonocyclicus* Dubatolova, 1964;
 - (m) *Cyclopentagonalis* Yeltysheva, 1964.
- (3) declare the names cited in the preceding subparagraph (2, a-m) available for use in zoological nomenclature as collective groups, with authorship and dates as given in subparagraph (2).

REFERENCES

[Additional to those given in 7 (1)]

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- 1964. Stebli Ordovikskikh morskich liliy Prebaltiki (Nizhniy Ordovik) [Prebaltic Ordovician crinoid stems (Lower Ordovician)], *Leningradskiy Ordena Lenina Gosudarstvennyy Universitet, Nauchno-Issled. Inst. Zemnoy Kory Paleont. Lab.*, 59-82, pl. 1-4
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